Industrial pSLC NAND microSD Card

SDT550 SERIES

SD 3.0	UHS-I
30K PE Cycles	pSLC NAND

SP **64**GB
microSDXC I U3 SDT550
Industrial -40~85°C

PRODUCT FEATURES

· pSLC Flash Technology with 30K PE cycles endurance

· Static & Dynamic Wear Leveling and Early weak block retirement

· Sudden Power-Off Recovery (SPOR) resilient firmware with capability to avoid firmware crash when sudden power loss or unstable voltage occurs during operation mode and device initialization stage.

· Auto Read-Refresh, Read retry, Garbage collection

· SP Toolbox utility program to monitor Overall health status, Power Cycle count, Abnormal power cyclecount, Bad block status including initial bad blocks, later bad blocks and spare blocks, Erase counts, ECC Uncorrectable counts.

· SP SMART Embedded applications with seamless integration with an edge's device operating system.

· SP SMART IoT Sphere providing cloud service with alarm and notifications which monitors and analyzes the health and status of SP Flash products inside the connected devices.

PRODUCT SUMMARY

- Capacities: 16GB, 32GB, 64GB
- Form Factor: microSD
- Interface SD Specification: SD 3.0 UHS-I
- Speed Class: Class 10, U3
- Performance :

	16GB	32GB	64GB	Units
Sequential Read (MB/s max.)		95		MB/s
Sequential Write (MB/s max.)		85		MB/s

*Actual performance may vary based on the specific model and capacity

- Operating Temperature Range :

  Normal: -25 °C to 85 °C
  Wide: -40 °C to 85 °C

- Storage Temperature Range: -40 °C to 85 °C
- Operating Voltage: 3.3 V ± 10%
- Power Consumption (Maximum, unit: mA)

  Read : 400mA
  Write: 400mA
  Stand-by: 1mA

*Actual performance may vary based on the specific model and capacity   (Unit: mA)

- Data Retention @40 °C: 10 Years @ Life Begin; 1 Year @ Life End
- Endurance in Tera Bytes Written (TBW)

	16GB	32GB	64GB	Units
TBW (guard band factor 2)	104	208	416	TB

- Mechanical (SDA Spec) :

  Bare Drop: 150cm free fall 6 faces
  Torque: 0.15N
  Bending: 10N-m

- StrongECC ECC up to 144 bits/1KB to ensure reliable 3K PE cycles
- Mean Time Between Failure: > =2,000,000 hours
- Serious quality control and assurance

  - 100% NAND Flash screening
  - Duration: 10,000 cycles
  - Compliant with SDA Spec. ISO 7816-1 to pass UV light exposure and X-ray exposure
  - Reliability criteria compliant with international standards IEC-60068 (Environmental test) and IEC-61000-4-2
    (ESD, Contact +/-4KV, Air discharge +/-8KV)

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